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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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William J. McFarland

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7590

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EXAMINER

HE, AMY

ART UNIT

PAPER NUMBER

2858

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/007,808	MCFARLAND ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Amy He	2858	✓

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-5,9-18,44-59 and 65-86 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-59 is/are allowed.
- 6) ☒ Claim(s) 2-5,9,10,13,14,75-77 and 79-86 is/are rejected.
- 7) ☒ Claim(s) 11-12, 15-18, 65-74 and 78 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 80 and 85 are objected to because of the following informalities:
  - a. Claims 80, lines 4-5, "the transceiver" lacks antecedent basis.
  - b. Claim 85, line1, it appears that it should be depended upon claim 84, otherwise, " a permitted antenna" lack antecedent basis.

Corrections are required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims14 and 75-76 are rejected under 35 U.S.C. 102(b) as being anticipated by Gomez et al. (U. S. Patent No. 5, 134, 418).

Referring to claim 14, Gomez discloses an antenna integrity device (in Figures 2-3 and 6) comprising:

a measurement device (324, 216) configured to determine at least one value (voltage across wristband resistance, column 5, line 7-33) of an antenna (202);  
at least one electronic device (receiver 212) connectable to the antenna; and  
a controller (230, 216) configured to prevent operation of the electronic device based on the determined antenna value (operation of the receiver is prevented when

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the power to the receiver is suspended due to the detection of a closure sensing signal indicating a open band condition of the antenna, see Figure 6);

wherein said measurement device is configured to read (using RAM 218 in Figure 2) the antenna value from a set of pins (the conductors within wrist straps 204 and 206 are considered as the set of pins) connected to the antenna.

Referring to claims 75 and 76, Gomez discloses an antenna integrity device (in Figures 2-3 and 6), comprising:

a measurement device (324, 216) configured to measure a resistance/resistivity (to see if wristband resistance 328 is in excess of thirty-three hundred ohms indicating an open band condition, column 5, lines 59-61; column 6, lines 44-50) between terminals of an antenna; and

a controller (230, 216) configured to determine at least one characteristic (close/open band condition) of the antenna based on the measured resistance/resistivity (open band condition if resistance 328 is in excess of thirty-three hundred ohms, column 5, lines 59-61);

wherein the characteristic comprises an open or closed band antenna.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the

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invention was made.

3. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable by Hardman (U. S. Patent No. 6, 122, 490), in view of Oglesby (U. S. Patent No. 6, 448, 787).

Referring to claim 5, Hardman discloses an antenna integrity check device (100 in Figure 1; column 3, lines 26-44), comprising:

a measurement device (the interrogation device, column 3, line 39) configured to determine at least one value of an antenna (103);

at least one electronic device (transceiver 101 or controller 120) connectable to the antenna; and

a controller (110 or 120) configured to prevent operation of the electronic device based on the determined antenna value.

Hardman does not specifically disclose said measurement device comprises a resonant frequency detector configured to determine a resonant frequency of the antenna.

Oglesby discloses a resonant frequency detector configured to determine a resonant frequency of the antenna (column 2, lines 34-38).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Hardman to disclose a resonant frequency detector configured to determine a resonant frequency of the antenna, as taught by Oglesby, since resonant frequency is one of the important properties of the antenna (Oglesby reference, column 1, lines 16-18).

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Referring to claim 10, Hardman discloses the antenna integrity device wherein said controller adjusts a power output (step 510 in Figure 5) of a transmitter attached to the antenna based on the determined antenna value.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable by Hardman (U. S. Patent No. 6, 122, 490), in view of Trask et al. (U. S. Patent No. 5, 122, 807)

Referring to claim 9, Hardman discloses the antenna integrity check device as in claim 1. Hardman does not specifically disclose that the controller (controller 120 in Figure 3) indexes a lookup table of antenna properties with the determined antenna value. Trask discloses indexing a lookup table of antenna properties (column 5, lines 3-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the controller of Hardman to index a lookup table of desired antenna gains or some other desired properties, as taught by Trask, so that the measured antenna values can be easily compared with desired values to determine whether or not the correct type of antenna is connected.

5. Claims 3-5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable by Gomez et al. (U. S. Patent No. 5, 134, 418), in view of Oglesby (U. S. Patent No. 6, 448, 787).

Referring to claim 5, Gomez discloses an antenna integrity check device (in Figures 2-3), comprising:

- a measurement device (238, 324, 216) configured to determine at least one value of an antenna (202);

- at least one electronic device (receiver 212) connectable to the antenna; and

a controller (230, 216) configured to prevent operation of the electronic device based on the determined antenna value(operation of the receiver is prevented when the power to the receiver is suspended due to the detection of a closure sensing signal indicating a open band condition of the antenna, see Figure 6).

Gomez does not specifically disclose said measurement device comprises a resonant frequency detector configured to determine a resonant frequency of the antenna.

Oglesby discloses a resonant frequency detector configured to determine a resonant frequency of the antenna (column 2, lines 34-38).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Gomez to disclose a resonant frequency detector configured to determine a resonant frequency of the antenna, as taught by Oglesby, since the resonant frequency is one of the important properties of the antenna (Oglesby reference, column 1, lines 16-18).

Referring to claims 3-4, Gomez discloses that the measurement device comprises a voltage/current source connected to the antenna, and a current/voltage measurement device connected with the voltage/current source and the antenna (column 5-column 6).

Referring to claim 13, Gomez discloses that the antenna (202) is connected to said at least one electronic device (212) via a single pin (conductor within wrist strap 204, column 3, lines 29-30) connection and ground; and

the DC current source is also connected to the antenna via the single pin connection (conductor within wrist strap 204, column 3, lines 29-30) and ground, such that said single pin connection carries both RF signals from the at least one electronic device to the antenna and DC current from the measurement device to the antenna (see Figure 3).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gomez et al. (U. S. Patent No. 5, 134, 418), in view of Yamashita (U. S Patent No. 5, 268, 765).

Referring to claim 2, Gomez discloses an antenna integrity check device as claimed in claim 5, wherein the controller is a microcomputer (216). Gomez does not disclose a logic gate as the controller. Yamashita discloses a logic gate serving as a controller (column 6, line 51). A person of ordinary skill in the art would find it obvious to modify Gomez to disclose the use of a logic gate for turning off the electronic device, in order to simplify the design of the antenna integrity check device, and also since it has been held to be within the general skill of a worker in the art to select a known tool (logic gate) for a known purpose (controlling) on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA).

7. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable by Gomez et al. (U. S. Patent No. 5, 134, 418), in view of Trask et al. (U. S. Patent No. 5, 122, 807)

Referring to claim 77, Gomez discloses the antenna integrity device of claim 76. Gomez does not specifically disclose that the controller indexes a lookup table that matches resistance values to antenna characteristics. Trask discloses indexing a lookup table of



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antenna properties (column 5, lines 3-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the controller of Gomez to index a lookup table of desired antenna value, as taught by Trask, so that the measured antenna resistance can be easily compared with desired resistance to determine whether or not there is a open band connection.

8. Claims 79-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gomez et al. (U. S. Patent No. 5, 134, 418), in view of Marsh et al. (U. S Patent No. 6, 539, 204).

Referring to claims 79-86, Gomez discloses the antenna integrity device according to claim 76, further comprising a lighting system (LCD, column 5, lines 30-33) configured to distinguish between a permitted antenna and an unpermitted antenna; and wherein the resistivity comprises a resistor (328) having a predetermined amount of resistance (thirty-three hundred ohms, column 5, lines 60-61) corresponding to the characteristic (open or closed band condition) of the antenna.

Gomez does not disclose that the antenna integrity device is installed on a computer card containing a wireless transmitter; wherein the transmitter comprises an 802.11 class transmitter and a radio-on-a-chip device; and determining if the antenna characteristic is within government regulations.

Marsh discloses a computer card containing a wireless transmitter; wherein the transmitter comprises an 802.11 class transmitter and a radio-on-a-chip device (column 7, line 35-column 8, line 12).

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A person of ordinary skill in the art would find it at the time of the invention to modify Gomez to disclose checking antenna integrity for government regulations on an antenna connected to a wireless transmitter; wherein the transmitter comprises an 802.11 class transmitter and a radio-on-a-chip device, as taught by Marsh, to ensure that a proper antenna is used.

***Allowable Subject Matter***

9. Claims 11-12, 15-18 and 65-74 and 78 are objected to as being dependent upon a rejected base claim (14 and 76), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-12, 15-18 and 65-74 are allowable because none of the prior art discloses an antenna integrity device, wherein a value of the antenna is determined based on a binary pattern of pins being open or shorted, and in the combination as claimed.

Claim 78 is allowable because none of the prior art discloses an antenna integrity device wherein determination of the characteristic of antenna is based on a specific encoding scheme as claimed, and in the combination as claimed.

10. Claims 44-59 are allowed.

Claims 44-59 are allowable because none of the prior art discloses a method of checking integrity of an antenna comprising the steps of reading an encoded pattern on a set of pins attached to the antenna to determine one property of the antenna, and in the combination as claimed.

***Response to Arguments***

11. Applicant's arguments with respect to claims 2-5, 9-18 and 44-59 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy He whose telephone number is (703)305-3360. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 703-308-0750. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

AH

April 30, 2004



**N. Le**

**Supervisory Patent Examiner  
Technology Center 2800**